Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously presented) A magnetoresistive sensor comprising:

a magnetoresistive stack layer including a first anti-ferromagnetic layer, a first pinned layer, a first non-magnetic layer, and a free layer;

a first underlayer of said magnetoresistive stack layer;

a magnetic domain control film; and

a pair of electrode films for supplying current to said magnetoresistive stack layer;

a second underlayer formed below said magnetic domain control film; and

an amorphous metal film layer formed below said second underlayer for controlling a crystallization of said second underlayer,

wherein a center position of an upper surface and a lower surface of said magnetic domain control film is positioned within a range of an upper surface and a lower surface of said free layer, and

wherein said second underlayer is formed of Cr or Cr alloy and comprises a body-centered cubic lattice (BCC) polycrystal thin film, and polycrystal orientation of said second underlayer against a formed plane thereof is isometric random crystal orientation having no particular crystal orientation.

2. (previously presented) A magnetoresistive sensor according to claim 1,

wherein said magnetoresistive stack layer further comprises a protection layer, and

wherein said first underlayer, said first anti-ferromagnetic layer, said first pinned layer, said first non-magnetic layer, said free layer and said protection layer are formed in order.

3.-4. (canceled)

5. (previously presented) A magnetoresistive sensor according to claim 1, wherein said amorphous metal film layer is formed on any one of surfaces within a range from a lower surface of said first underlayer to an upper surface of said first non-magnetic layer.

6. (previously presented) A magnetoresistive sensor according to claim 1, wherein a lower surface of said free layer is aligned with a lower surface of said magnetic domain control film, and a bias magnetic field of said magnetic domain control film is mainly applied to said free layer.

7. (canceled)

8. (previously presented) A magnetoresistive sensor according to claim 1, wherein said magnetic domain control film is formed of a Co alloy film, said second underlayer controls a crystallization state of said magnetic domain control film, and said amorphous metal film layer controls a crystallization state of said second underlayer.

9. (previously presented) A magnetoresistive sensor according to claim 1, wherein said magnetic domain control film is formed of a Co alloy film, said second underlayer is formed of a Cr or Cr alloy film, and said amorphous metal film layer is formed of an Ni series alloy or Co series alloy film.

10. (original) A magnetoresistive head constituted by using a magnetoresistive sensor according to claim 1.

11. (previously presented) A magnetoresistive head comprising:

a magnetoresistive stack layer including a first anti-ferromagnetic layer, a first pinned layer, a first non-magnetic layer, and a free layer;

a first underlayer for said magnetoresistive stack layer;

a magnetic domain control film; and

a pair of electrode films for supplying current to said magnetoresistive stack layer;

a second underlayer formed below said magnetic domain control film; and

an amorphous metal film layer formed below said second underlayer for controlling a crystallization state of said second underlayer,

wherein a track width of said magnetoresistive stack layer differs non-continuously,

wherein said second underlayer is formed of Cr or Cr alloy and a polycrystal orientation of said second underlay against a formed plane thereof is isometric random crystal orientation having no particular crystal orientation.

12. (previously presented) A magnetoresistive head according to claim 11,

wherein said second underlayer comprises a body-centered cubic lattice (BCC) polycrystal thin film,

wherein said magnetoresistive stack layer further comprises a protection layer, and

wherein said first underlayer, said first anti-ferromagnetic layer, said first pinned layer, said first non-magnetic layer, said free layer and said protection layer are formed in order.

13. (previously presented) A magnetoresistive head according to claim 11,

wherein said second underlayer comprises a body-centered cubic lattice (BCC) polycrystal thin film,

wherein said magnetoresistive stack layer further comprises a protection layer, a second anti-ferromagnetic layer, a second pinned layer, and a second non-magnetic layer, and

wherein said first underlayer, said first anti-ferromagnetic layer, said first pinned layer, said first non-magnetic layer, said free layer, said second non-magnetic layer,

said second pinned layer, said second anti-ferromagnetic layer, and said protection layer are formed in order.

14. (withdrawn) A magnetoresistive head according to claim 11,

wherein said second underlayer comprises a body-centered cubic lattice (BCC) polycrystal thin film,

wherein said magnetoresistive stack layer further comprises a protection layer, and

wherein said first underlayer, said free layer, said first non-magnetic layer, said first pinned layer, said first anti-ferromagnetic layer and said protection layer are formed in order.

15. (previously presented) A magnetoresistive head according to claim 11, wherein said amorphous metal film layer is formed on any one of surfaces within a range from a lower surface of said second underlayer to an upper surface of said non-magnetic layer of said magnetoresistive stack layer.

16. (previously presented) A magnetoresistive head according to claim 11, wherein a lower surface of said free layer and a lower surface of said magnetic domain control film are formed in a same surface, and a bias magnetic field of said magnetic domain control film is mainly applied to said free layer.

17. (canceled)

18. (previously presented) A magnetoresistive head according to claim 11, wherein said magnetic domain control film is formed of a Co alloy film, said second underlayer controls a crystallization state of said magnetic domain control film, and said amorphous metal film layer controls a crystallization state of said second underlayer.

19. (previously presented) A magnetoresistive head according to claim 11, wherein said magnetic domain control film is formed of a Co alloy film, said second

underlayer is formed of a Cr or Cr alloy film, and said amorphous metal film layer is formed of an Ni series alloy or Co series alloy film.

20.-22. (canceled)

23. (previously presented) A magnetoresistive head according to claim 11, wherein said magnetic domain control film is formed of a Co alloy film, said second underlayer is formed of a Cr or Cr alloy film, and said amorphous metal film layer is formed of an Ni series alloy or Co series alloy film and includes at least one element selected from the group consisting of P, Cr, Zr, Nb, Hf, In, Mo Ti, V, Ta, W, Ru, Rh, Pd, and Pt.

24. (previously presented) A magnetoresistive head according to claim 11, wherein a surface of said amorphous metal film layer is oxidized.

25. (previously presented) A magnetoresistive head according to claim 11, wherein an average crystal grain size of a polycrystal film of the magnetic domain control film is 5 to 20 nm.

26. (previously presented) A magnetoresistive head according to claim 11, wherein said magnetic domain control film comprises a magnetic thin film formed of a Co alloy film and containing 5 to 20 at% composition of Pt element as a first addition element, with a coercivity of the magnetic domain control film of 1 KOe or more and with a saturation magnetic flux density of 1 T or more.

27. (previously presented) A magnetoresistive head according to claim 11, wherein a thickness of the second underlayer is 5 nm or less, and wherein a thickness of the amorphous metal film layer is 5 nm or less and a gap between the free layer and the magnetic domain control film is 10 nm or less.